

In the Claims

Please cancel claims 1-11, 14-23, 27-31, 35 and 36; amend claims 12, 24-26, 32-34, 37 and 38; and add new claims 39-48 as follows:

Claims 1-11. (canceled)

12. (currently amended) A method according to claim [[1]] 26, comprising defining a set of interpolation filters for use in connection with a particular prediction type.

13. (original) A method according to claim 12, comprising providing an indication of a particular one of said set of interpolation filters to be used in motion compensated prediction of a block.

Claims 14-23. (canceled)

24. (currently amended) A method according to claim [[23]] 26, implemented in a video encoder.

25. (currently amended) A method according to claim [[23]] 26, implemented in a video decoder.

26. (currently amended) A method according to claim 23 of motion compensated prediction in which an interpolation filter to be used during motion compensated prediction of a picture block is selected in dependence on the type of motion compensated prediction used, wherein if the type of motion compensation used is a multi-picture prediction type, in which a prediction for the picture block is formed using more than one reference picture, the selected interpolation filter has fewer coefficients than the interpolation filter that is selected when the type of motion compensated prediction used is a single-picture prediction type, in which a prediction for the picture block is formed using a single reference picture.

Claims 27-31. (canceled)

32. (currently amended) An apparatus according to claim [[31]] 34, implemented in a video encoder.

33. (currently amended) An apparatus according to claim [[31]] 34, implemented in a video decoder.

34. (currently amended) An apparatus ~~according to claim 31 for performing motion compensated prediction comprising means for selecting an interpolation filter to be used during motion compensated prediction of a picture block in dependence on the type of motion compensated prediction used~~, wherein if the type of motion compensation used is a multi-picture prediction type, in which a prediction for the picture block is formed using more than one reference picture, said means for selecting an interpolation filter is operative to select an interpolation filter that has fewer coefficients than an interpolation filter that is selected when the type of motion compensated prediction used is a single-picture prediction type, in which a prediction for the picture block is formed using a single reference picture.

Claims 35-36. (canceled)

37. (currently amended) A video encoder comprising an apparatus for performing motion compensated prediction, wherein said apparatus for performing motion compensated prediction comprises means for selecting an interpolation filter to be used during motion compensated prediction of a picture block in dependence on the type of motion compensated prediction used, and wherein if the type of motion compensation used is a multi-picture prediction type, in which a prediction for the picture block is formed using more than one reference picture, said means for selecting an interpolation filter is operative to select an interpolation filter that has fewer coefficients than an interpolation filter that is selected when the type of motion compensated prediction used is a single-picture prediction type, in which a prediction for the picture block is formed using a single reference picture.

38. (currently amended) A video decoder comprising an apparatus for performing motion compensated prediction, wherein said apparatus for performing motion compensated prediction comprises means for selecting an interpolation filter to be used during motion compensated prediction of a picture block in dependence on the type of motion compensated prediction used, and wherein if the type of motion compensation used is a multi-picture prediction type, in which a prediction for the picture block is formed using more than one reference picture, said means for selecting an interpolation filter is operative to select an interpolation filter that has fewer coefficients than an interpolation filter that is selected when the type of motion compensated prediction used is a single-picture prediction type, in which a prediction for the picture block is formed using a single reference.

39 (new). A coding system for coding a video sequence, the video sequence comprising a number of pictures, in which a picture of the video sequence is divided into blocks and a block of said picture is encoded using one of a number of different types of motion compensated prediction, including at least a single-picture prediction type that employs motion compensated prediction to generate predicted pixel values for the block by using an interpolation filter operating on pixel values of a single reference picture in said video sequence and a multi-picture prediction type that employs motion compensated prediction to generate predicted pixel values for the block by using an interpolation filter operating on pixel values of more than one reference picture in said video sequence, said system comprising:

    a module for selecting a prediction type to be used in motion compensated prediction encoding of the block; and

    a module for changing the interpolation filter based on the selected prediction type, wherein if the type of motion compensation used is a multi-picture prediction type, in which a prediction for the picture block is formed using more than one reference picture, said means for selecting an interpolation filter is operative to select an interpolation filter that has fewer coefficients than an interpolation filter that is selected when the type of motion compensated prediction used is a single-picture prediction type, in which a prediction for the picture block is formed using a single reference.

40. (new) A coding system according to claim 39, wherein the changing module is also adapted to change the interpolation filter based on a characteristic of the block.
41. (new) A method according to claim 26, wherein the selected interpolation filter comprises a 4-tap filter when the type of motion compensation used is a multi-picture prediction type.
42. (new) A method according to claim 26, wherein the interpolation filter that is selected when the type of motion compensation used is a single-picture prediction type comprises a 6-tap filter.
43. (new) An apparatus according to claim 34, wherein the selected interpolation filter comprises a 4-tap filter when the type of motion compensation used is a multi-picture prediction type.
44. (new) An apparatus according to claim 34, wherein the interpolation filter that is selected when the type of motion compensation used is a single-picture prediction type comprises a 6-tap filter.
45. (new) A video encoder according to claim 37, wherein the selected interpolation filter comprises a 4-tap filter when the type of motion compensation used is a multi-picture prediction type.
46. (new) A video encoder according to claim 37, wherein the interpolation filter that is selected when the type of motion compensation used is a single-picture prediction type comprises a 6-tap filter.
47. (new) A video decoder according to claim 38, wherein the selected interpolation filter comprises a 4-tap filter when the type of motion compensation used is a multi-picture prediction type.

48. (new) A video decoder according to claim 38, wherein the interpolation filter that is selected when the type of motion compensation used is a single-picture prediction type comprises a 6-tap filter.